

WR-35
Rev (9-11)

PM

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 9/25/2013

API #: 47-10302822

Farm name: Richard Dallison ET AL Operator Well No.: 513872

LOCATION: Elevation: 1452 Quadrangle: Big Run 7.5'

District: Grant County: Wetzel
Latitude: 5.139 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 11.528 Feet West of 80 Deg. 32 Min. 30 Sec.

Company: EQT Production Company

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
EQT Plaza, Suite 1700				
625 Liberty Avenue, Pittsburgh, PA	20"	40	40	44.84
Agent: Rex C. Ray	13-3/8"	1008	1008	1010.7
Inspector: Derek Haught	9-5/8"	3741	3741	1560.9
Date Permit Issued: 10/29/2012	5-1/2"	12250	12250	1813.6
Date Well Work Commenced: 2/25/2013				
Date Well Work Completed: 9/25/2013				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 7554				
Total Measured Depth (ft): 12264				
Fresh Water Depth (ft.): 783				
Salt Water Depth (ft.): 2260, 2373				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 737, 807, 922, 1012, 1244				
Void(s) encountered (N/Y) Depth(s) N				


OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,223
Gas: Initial open flow 2,400 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 6,396 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 72.5 Hours
Static rock Pressure 2,655 psig (surface pressure) after 75.5 Hours

Second producing formation No Second Formation Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

9/8/2014
Date

01/23/2015

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gyro, Gamma, & CBL

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

See Attachment

Amended Report with Flow Back Data

Plug Back Details Including Plug Type and Depth(s): N/A

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

Sand/Shale 0/737/737	Benson 5633.8/5953.1/319.3
Coal 737/738/1	Alexander 5953.1/6872.2/919.1
Sand/Shale 738/807/69	Rhinestreet 6872.2/6877.7/5.5
Coal 807/ 817/10	Sonyea 6877.7/7001.9/124.2
Sand/Shale 817/922/105	Middlesex 7001.9/7043.7/41.8
Coal 922/927/5	Genessee 7043.7/7113.3/69.6
Sand/Shale 927/1012/85	Geneseo 7113.3/7134.8/21.5
Coal 1012/1022/10	Tully 7134.8/7151.3/16.5
Sand/Shale 1022/1244/222	Hamilton 7151.3/7223.5/72.2
Coal 1244/1,250/ 6	Marcellus 7223.5/7554/330.5
Sand/Shale 1,250 /2481.1/ 1241.1	
Big Lime 2481.1/3958.4/1477.1	
Warren 3958.4/4109.7/151.3	
Speechley 4109.7/4999/889.3	
Riley 4999/5633.8/634.9	

513872 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft
Toe Pop	2/14/14 4:50	12,089.00	NA	13,467.00	13,470.00	NA
1	2/14/14 10:07	12,089.00	NA	12,103.00	12,195.00	4
2	2/14/14 16:45	11,939.00	12,089.00	11,953.00	12,075.00	4
3	2/15/14 0:31	11,789.00	11,939.00	11,803.00	11,925.00	4
4	2/15/14 5:20	11,639.00	11,789.00	11,658.00	11,775.00	4
5	2/16/14 18:55	11,489.00	11,639.00	11,503.00	11,625.00	4
6	2/17/14 4:29	11,339.00	11,489.00	11,353.00	11,475.00	4
7	2/17/14 10:56	11,189.00	11,339.00	11,203.00	11,325.00	4
8	2/17/14 14:21	11,042.00	11,189.00	11,053.00	11,175.00	4
9	2/17/14 20:38	10,889.00	11,042.00	10,903.00	11,025.00	4
10	2/18/14 1:26	10,739.00	10,889.00	10,753.00	10,875.00	4
11	2/18/14 5:21	10,589.00	10,739.00	10,603.00	10,725.00	4
12	2/18/14 10:00	10,439.00	10,589.00	10,453.00	10,575.00	4
13	2/18/14 15:00	10,289.00	10,439.00	10,303.00	10,425.00	4
14	2/18/14 20:05	10,139.00	10,289.00	10,153.00	10,275.00	4
15	2/19/14 0:16	9,989.00	10,139.00	10,003.00	10,125.00	4
16	2/19/14 7:11	9,839.00	9,989.00	9,853.00	9,975.00	4
17	2/19/14 11:12	9,689.00	9,839.00	9,703.00	9,825.00	4
18	2/19/14 16:09	9,539.00	9,689.00	9,553.00	9,675.00	4
19	2/19/14 20:40	9,389.00	9,539.00	9,403.00	9,525.00	4
20	2/20/14 0:43	9,239.00	9,389.00	9,253.00	9,375.00	4
21	2/20/14 5:44	9,089.00	9,239.00	9,103.00	9,225.00	4
22	2/20/14 9:49	8,939.00	9,089.00	8,953.00	9,075.00	4
23	2/20/14 15:03	8,789.00	8,939.00	8,803.00	8,925.00	4
24	2/20/14 19:23	8,639.00	8,789.00	8,653.00	8,775.00	4
25	2/21/14 8:12	8,489.00	8,639.00	8,503.00	8,625.00	4
26	2/21/14 21:17	8,339.00	8,489.00	8,353.00	8,475.00	4
27	2/22/14 1:29	8,189.00	8,339.00	8,203.00	8,325.00	4
28	2/23/14 10:14	8,039.00	8,189.00	8,053.00	8,175.00	4
29	2/23/14 13:59	7,889.00	8,039.00	7,903.00	8,025.00	4
30	2/23/14 17:16	NA	7,889.00	7,753.00	7,875.00	4

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513872 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbl/min)	ISIP (psi)	Frac Gradient (psi/ft)	15 Min. SIP (psi)	Fluid Volume (bbl)	Start Date	End Date	Proppant (lb)
Toe Pop	NA	7,198.00	9.6	NA	NA	NA	840	2/14/2014 7:04	2/14/2014 8:29	NA
1	7,909.00	8,200.00	96.7	3,658.00	0.92	3,091.00	7,154	2/14/2014 12:26	2/14/2014 15:06	198,643
2	9,040.00	8,521.00	95.9	3,678.00	0.92	2,962.00	5,506	2/14/2014 20:54	2/14/2014 22:33	200,132
3	6,261.00	8,306.00	100.5	3,708.00	0.92	2,985.00	5,243	2/15/2014 2:00	2/15/2014 3:18	198,924
4	7,678.00	8,394.00	90.5	3,359.00	0.88	3,004.00	6,442	2/16/2014 12:34	2/16/2014 17:12	200,131
5	7,677.00	8,692.00	94.6	3,718.00	0.93	2,961.00	5,139	2/16/2014 20:30	2/16/2014 21:46	199,960
6	7,171.00	8,414.00	91.9	3,462.00	0.89	3,116.00	5,531	2/17/2014 6:33	2/17/2014 8:22	200,072
7	7,186.00	8,258.00	94.6	3,817.00	0.94	3,156.00	5,121	2/17/2014 12:06	2/17/2014 13:23	199,407
8	7,415.00	8,465.00	99.1	3,910.00	0.95	3,107.00	5,062	2/17/2014 17:48	2/17/2014 19:00	200,712
9	7,510.00	8,262.00	99.1	3,987.00	0.96	3,193.00	5,015	2/17/2014 21:52	2/17/2014 23:05	200,915
10	8,702.00	8,168.00	99.7	3,838.00	0.94	3,114.00	4,935	2/18/2014 2:35	2/18/2014 3:47	200,039
11	7,801.00	8,126.00	100.1	3,716.00	0.93	3,166.00	4,981	2/18/2014 7:21	2/18/2014 8:54	199,390
12	6,959.00	8,263.00	97.0	3,819.00	0.94	3,168.00	5,219	2/18/2014 13:00	2/18/2014 14:15	201,959
13	7,821.00	8,276.00	92.7	3,720.00	0.93	3,070.00	4,987	2/18/2014 17:17	2/18/2014 18:32	200,527
14	8,493.00	8,229.00	97.5	3,774.00	0.93	3,136.00	5,089	2/18/2014 21:27	2/18/2014 22:39	200,603
15	7,937.00	8,034.00	99.2	3,860.00	0.95	3,109.00	4,998	2/19/2014 1:30	2/19/2014 2:39	200,161
16	7,635.00	8,252.00	91.0	3,700.00	0.92	3,104.00	4,935	2/19/2014 8:30	2/19/2014 9:46	200,782
17	7,520.00	8,079.00	90.6	3,865.00	0.95	3,190.00	4,888	2/19/2014 13:20	2/19/2014 14:50	200,323
18	7,527.00	8,015.00	97.5	3,970.00	0.96	3,243.00	5,472	2/19/2014 17:42	2/19/2014 18:57	201,936
19	7,360.00	8,596.00	90.0	3,756.00	0.93	3,018.00	5,071	2/19/2014 21:54	2/19/2014 23:05	200,626
20	7,019.00	7,760.00	96.6	3,869.00	0.95	3,200.00	5,010	2/20/2014 2:51	2/20/2014 4:00	195,918
21	7,124.00	7,743.00	96.6	3,773.00	0.93	3,191.00	4,918	2/20/2014 7:06	2/20/2014 8:37	198,700
22	7,693.00	7,988.00	91.5	3,737.00	0.93	3,073.00	5,418	2/20/2014 12:14	2/20/2014 13:36	199,117
23	6,824.00	7,747.00	98.3	3,774.00	0.93	3,018.00	4,788	2/20/2014 16:28	2/20/2014 17:43	199,582
24	7,471.00	7,786.00	98.9	3,740.00	0.93	3,133.00	5,108	2/21/2014 5:17	2/21/2014 6:27	200,270
25	7,508.00	7,690.00	95.1	3,928.00	0.96	3,155.00	4,741	2/21/2014 11:11	2/21/2014 12:21	200,359
26	7,908.00	7,735.00	100.5	3,949.00	0.96	3,231.00	4,976	2/21/2014 22:36	2/21/2014 23:44	200,274
27	7,126.00	8,107.00	93.8	3,514.00	0.9	2,913.00	4,961	2/23/2014 7:26	2/23/2014 8:39	201,126
28	7,697.00	7,527.00	100.5	3,633.00	0.92	3,047.00	4,989	2/23/2014 11:31	2/23/2014 12:41	201,091
29	6,284.00	7,914.00	99.0	3,700.00	0.93	3,006.00	4,678	2/23/2014 14:54	2/23/2014 16:02	200,882
30	6,701.00	7,764.00	99.7	3,587.00	0.91	3,085.00	4,923	2/23/2014 18:22	2/23/2014 19:28	200,332

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/14/2014
Job End Date:	2/23/2014
State:	West Virginia
County:	Wetzel
API Number:	47-103-02822-00-00
Operator Name:	EQT Production
Well Name and Number:	BIG192 - 513872
Longitude:	-80.58344400
Latitude:	39.52903800
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,554
Total Base Water Volume (gal):	6,735,497
Total Base Non Water Volume:	301,496



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Halliburton	Carrier	Water	7732-18-5	100.00000	89.91492	
Sand	Halliburton	Proppant	Crystalline Silica	14808-60-7	100.00000	9.62023	
MX-5	Halliburton	Biocide	Sodium Nitrate	7631-99-4	60.00000	0.05691	
Hydrochloric Acid 15%	Halliburton	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.03832	
FR-66	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02169	
MX-8	Halliburton	Biocide	Bacteria Culture	N/A	100.00000	0.00962	
WG-36	Halliburton	Gelling Agent	Guar Gum	9000-30-0	100.00000	0.00452	
LP-65	Halliburton	Scale Inhibitor	Ammonium Chloride	12125-02-9	10.00000	0.00245	
BA-40L	Halliburton	Buffer	Potassium carbonate	584-08-7	60.00000	0.00187	
HAI-OS	Halliburton	Protects casing					

